

AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of the Claims

Claims 11 and 12. (Cancelled)

13. (New) A mold for connecting frame members having connection parts by surrounding the connection parts of the frame members inserted into the mold in cast metal, comprising:

engagement parts engaging and holding respective frame members such that the connection parts of the frame members are positioned within the mold;

a guide groove, which extends from at least one engagement part along at least one connection part toward the inside of the mold, wherein a gap is provided between the guide groove and the at least one connection part;

a molten metal injection cavity, which receives the connection parts of the frame members and a molten metal to form a cast joint between the frame members, wherein a size of the molten metal injection cavity is sufficient to allow thermal deformation of the frame members caused by the molten metal.

14. (New) A mold according to claim 13, wherein the guide groove extends from the at least one engagement part to the vicinity of a middle of the at least one connection part.

15. (New) A mold according to claim 13, wherein the connection parts of the frame members are placed in the molten metal injection cavity such that the connection parts do not contact each other.

16. (New) A mold according to claim 13, wherein a connection part of at least one of the frame members is subjected to a bending treatment, and a respective guide groove is formed to have a same shape as the connection part subjected to the bending treatment.

17. (New) A mold according to claim 14, wherein a connection part of at least one of the frame members is subjected to a bending treatment, and a respective guide groove is formed to have a same shape as the connection part subjected to the bending treatment.

18. (New) A mold according to claim 15, wherein a connection part of at least one of the frame members is subjected to a bending treatment, and a respective guide groove is formed to have a same shape as the connection part subjected to the bending treatment.

19. (New) A mold according to claim 13, wherein at least one frame member is a vehicle frame component.

20. (New) A method for joining frame members by surrounding connection parts of respective frame members in a cast metal comprising:

providing a mold having engagement parts, a molten metal injection cavity, and a guide groove that extends from at least one of the engagement parts toward the inside of the mold;

inserting the frame members into the molten metal injection cavity of the mold such that the frame members are engaged with respective engagement parts, and the engagement parts hold the respective frame members in the condition that the connection parts of the respective frame members are positioned within the molten metal injection cavity of the mold, and such that the guide groove extends along at least one of the connection parts and a gap is provided between the guide groove and the at least one of the connection parts; and

inserting a molten metal into the molten metal injection cavity to thereby form a cast joint between the frame members, wherein the molten metal injection cavity is of a size sufficient to allow thermal deformation of the frame members due to the molten metal.

21. (New) A joint structure of frame members formed according to the method of claim 20.

22. (New) A joint structure of frame members according to claim 21, wherein each of the frame members is a vehicle frame component.

23. (New) A joint structure of frame members according to claim 21, wherein one of the frame members is a door sash subjected to a bending treatment.

24. (New) A joint structure of frame members according to claim 21, wherein each of the frame members is made of aluminum alloy.

25. (New) A joint structure of frame members according to claim 22, wherein each of the frame members is made of aluminum alloy.

26. (New) A joint structure of frame members according to claim 23, wherein each of the frame members is made of aluminum alloy.

27. (New) A method of joining frame members according to claim 20, wherein at least one of the frame members is an aluminum frame which is obtained by an extrusion of aluminum alloy and has a plane cross section at an end thereof, and wherein

the connection part of the aluminum frame is subjected to a bending treatment.